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**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applica	tion of:	)
	Dale Langer et al.	Examiner: Brent Swarthout
Serial No.:	10/086,598	) Group Art Unit: 2632
Filed:	February 28, 2002	) Docket: 1528.025US1
For:	COCKPIT DISPLAY SYSTE	) EMS AND METHODS OF PRESENTING

DATA ON COCKPIT DISPLAYS

## APPELLANTS' BRIEF ON APPEAL

Mail Stop Appeal Brief- Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The Appeal Brief is presented in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on January 4, 2005 and received in the Office on January 10, 2005, from the Final Rejection of claims 1-25 of the above-identified application, as set forth in the Final Office Action mailed on October 5, 2004.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$500.00 which represents the requisite fee set forth in 37 C.F.R. § 117. The Appellants respectfully request consideration and reversal of the Examiner's rejections of pending claims.

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## APPELLANTS' BRIEF ON APPEAL

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# 1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, GARMIN, LTD.

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# 2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellant that will have a bearing on the Board's decision in the present appeal.

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# 3. STATUS OF THE CLAIMS

The present application was filed on February 28, 2002 with claims 1-25. Non-final Office Actions were mailed on April 11, 2003 and November 13, 2003, and an Advisory Action was mailed on February 4, 2004. An RCE was filed on February 12, 2004 with amendments to the claims; another Office Action was mailed March 11, 2004. A response was filed with amendments on June 11, 2004. Subsequently, a final Office Action was mailed on October 5, 2004. Applicant's Response Under 37 C.F.R. 1.116 filed with a Notice of Appeal on January 4, 2005 did not include amendments to the claims.

Claims 1-25 stand twice rejected, remain pending, and are the subject of the present appeal. No claims have been cancelled or allowed.

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# 4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action dated October 5, 2004.

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### 5. SUMMARY OF CLAIMED SUBJECT MATTER

This summary is presented in compliance with the requirements of Title 37 C.F.R. § 41.37(c)(1)(v), mandating a "concise explanation of the subject matter defined in each of the independent claims involved in the appeal ...". Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed so as to limit the scope of the claims in any way.

Some embodiments of the invention are related to a cockpit display comprising a first region having communication settings and navigational settings both simultaneously presented within the first region. The cockpit display may also include a second region having additional settings and graphical data simultaneously presented within the second region. The cockpit display is surrounded by a bezel having avionic communication, navigation, and transponder controls integrated within the bezel. The controls manually adjusted to modify the settings and the graphical data. Application FIGS. 1-3 and pg. 10 line 6 through pg. 16.

Some embodiments of the invention are related to a cockpit display system comprising a display having a display area where one or more settings are presented. The display also includes an additional display area where one or more additional settings and graphical data are presented. The cockpit display system also includes a bezel surrounding a perimeter of the display and one or more controls and a transponder control integrated within the bezel and operable to dynamically modify one or more of the settings within the display area and one of more of the additional settings within the addition display area. Application FIGS. 1-3 and pg. 10 line 6 through pg. 16.

Some embodiments of the invention are related to a cockpit instrument system comprising a first display having a first region that displays settings and one or more second regions that display first additional settings and additional flight data. The cockpit instrument system also includes a second display having a first region displaying the settings and having one or more second regions that display second additional settings and the additional flight data. The first and second displays are immediately adjacent to

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one another and the first additional and second additional settings are the same. Application FIG. 3 pg. 15 second full paragraph through pg. 16.

Some embodiments of the invention are related to a method of presenting flight setting data on a flight display, comprising providing a flight display interfaced to flight controls and flight sensors; the flight controls include a transponder control.

Additionally, flight setting data is received from the flight sensors by manually adjusting the controls. Furthermore, the flight setting data is presented in a contiguous location within the flight display where one or more additional locations with the display are available for additional use. Application FIGS. 4-5 and pg. 17 line 1 through the second paragraph on pg. 19.

This summary does not provide an exhaustive or exclusive view of the present subject matter. The Appellant refers to the appended claims and their legal equivalents for a complete statement of the invention.

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## 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claims 1-13 and 21, and 23-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder (US 6,381,519) in view of DeMers et al. (US 6,346,892).
- B. Claims 14, 16-20 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers et al. and Bomans et al. (US 6,236,913).
- C. Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers et al., Bomans et al. (913) and Oder et al. (US 5,475,594).
- D. Claim 22 was rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers et al. and Devino (US 4,598,292).

Claims 1-25 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. 6,696,980 in view of Snyder, DeMers et al., Bomans et al. (913), Oder et al. and Devino. It is believed that Applicant's Terminal Disclaimer filed June 10, 2004 has overcome this rejection.

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#### 7. ARGUMENT

#### A) Applicable Law

The Examiner has the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a prima facie case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. Id. The M.P.E.P. contains explicit direction to the Examiner that agrees with the In re Fine court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

The test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985). References must be considered in their entirety, including parts that teach away from the claims. See MPEP § 2141.02. The fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPO2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

Furthermore, in Ex Parte Clapp, 227U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985), the Board held that:

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[t]o support the conclusion that the claimed subject matter is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

#### B) References

**DeMers** discloses an aircraft display system that includes a pilot data input mechanism. *E.g.*, DeMers FIGS. 1-4; col. 4, lines 7-17. A display is altered by "placing a set of buttons 20 with alphabetical markings and other indicia around the periphery thereof as a keyboard for use in entering commands." DeMers, col. 4, lines 8-10. The keyboard includes an enter key labeled as a "GO" button. *E.g.*, DeMers, col. 10, lines 64-67.

**Snyder** discloses an aircraft display and control system that includes a processor, a cursor control, a selection device, a plurality of databases, and a plurality of display devices. Snyder, col. 2 line 66 through col. 3 line 15. Snyder focuses on the cursor control device that is used by a pilot to input or select information presented on displays or monitors within the aircraft. Snyder, col. 3, lines 16-27.

#### C) Discussion of the Rejections

#### C.1 The Rejections Under § 103:

Claims 1-13 and 21, and 23-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers. Claims 14, 16-20 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers and in further view of Bomans. Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers, Bomans and Oder. Claim 22 was rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder in view of DeMers and in further view of Devino. A *prima facia* case of obviousness has not been established; thus, the Appellant respectfully traverses these rejections.

No proper *prima facie* case of obviousness has been established because (1) combining the references does not teach all of the limitations set forth in the claims, (2)

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there is no motivation to combine the references, and (3) combining the references provides no reasonable expectation of success. Each of these points will be explained in detail, as follows.

# C.1.A Combining the References do not Teach All the Independent Claim Limitations

Each of the independent claims 1, 7, 14, and 21 positively recites a claims a bezel. A bezel is defined in the dictionary as: "a rim that holds a transparent covering (as on a watch, clock, or headlight) or that is rotatable and has special markings (as on a watch)."

See Merriam-Webster Online Dictionary at <a href="http://www.m-w.com/">http://www.m-w.com/</a> keyword "bezel."

The Examiner has continued to assert that the DeMers reference teaches a bezel. Applicant respectfully disagrees with this assessment. In DeMers, a keyboard is placed around the periphery of a display. DeMers, col. 4, lines 7-10. There is no teaching or suggestion of a bezel, a keyboard surrounds a display but no bezel is taught. In fact, a bezel would be impractical in DeMers because of the large number of keys required to mimic a keyboard around the periphery of a display. DeMers believes that a keyboard arrangement will maximize limited space within an aircraft and provide a better data input and selection mechanism to the pilot. However, there is not a single teaching of a bezel that would more easily permit key labels and key arrangements to be modified or changed in a more generic fashion. A bezel provides unique packaging and manufacturing benefits, and there is no teaching or suggestion of a teaching that a bezel is present in DeMers.

This is so, because there is no rim or transparent covering that is placed over the buttons in DeMers, such that a bezel may be inferred based on the definition of a bezel and based on how that term is generally understood by one or ordinary skill in the art. DeMers places keys in a specific arrangement adjacent to one another around the periphery of a display; but there is no covering or shell that surrounds the keys themselves such that a bezel may be suggested. It is respectfully asserted that the Examiner is using improper hindsight with respect to DeMers and is suggesting a bezel

that is non existent only after having read and comprehended the Appellant's disclosure. One of ordinary skill in the art would not have made this modification to DeMers because a bezel would have been impractical with all the keys needed in DeMers in order to support a full keyboard.

It is also noted that the Examiner has asserted that the DeMers reference includes a transponder control. Again, this is not the case. There is a keyboard in DeMers and none of the keys of that keyboard are in fact a transponder control. Again, each of the independent claims 1, 7, 14, and 21 positively recite a transponder control.

Therefore, there are at least two missing elements from the proposed combination of references, namely a bezel and a transponder control. The Examiner has incorrectly asserted that both a bezel and a transponder control are present in DeMers. The Appellant respectfully requests that the rejections be withdrawn and that the independent claims be allowed.

#### C.1.B. There is no Motivation to Combine the References

The Examiner has asserted that the combination of Snyder and DeMers would have been obvious to one of ordinary skill in the art. Appellant respectfully disagrees with this conclusion because Snyder includes multiple displays using a single input device via a cursor mechanism and DeMers uses a specific input mechanism for a single display.

Stated another way, the very purpose of Snyder is to eliminate input mechanisms from cluttering a display. In an effort to correct this, the input mechanism is separated entirely from the displays in Snyder, such as via a remote touchpad. Snyder, col. 3, lines 16-27. Multiple displays are manipulated via a cursor device.

Conversely, DeMers provides a keyboard that surrounds a single display. One of ordinary skill in the art would not have combined DeMers with Snyder because it would have defeated the very purpose of Snyder which was to decrease clutter around cockpit displays. It is also unclear as to what the result would be if Snyder and DeMers were combined. Would a keyboard be supplied for each of the multiple displays in Snyder?

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Or, would the multiple displays have a single keyboard arranged around the periphery of all the displays?

Snyder wanted to separate the input mechanisms from cockpit displays and DeMers wanted to provide a traditional keyboard around the periphery of a display. These are alternative teachings and one of ordinary skill in the art would have recognized this and would not have been motivated to combine the two.

Thus, the Appellant respectfully asserts that there would have been no motivation to combine the two teachings and even if there were a motivation the combined teachings still lack a bezel and a transponder control and each of these missing elements are positively recited and claimed in the independent claims 1, 7, 14, and 21. Therefore, the rejections should be withdrawn and the claims allowed.

# C.1.C The Proposed Combination Provides no Reasonable Expectation of Success

The Examiner's proposed combination of Snyder and DeMers, which is relied upon for the rejections of each of the independent claims, cannot be reasonably achieved. The Snyder and DeMers teachings are alternative approaches and do not compliment one another. In fact, these references are from the same assignee. The Snyder reference has a later file date than the DeMers reference. It is logical to assume that Snyder was and is intended to be an improvement or alternative approach to the DeMers teachings.

As was stated above, Snyder coordinates a plurality of displays with a remote and decoupled input mechanism having a cursor device. Conversely, DeMers tries to provide a physical keyboard to a single display via keys arranged in a manner that is not intuitive. The combination of Snyder and DeMers would result in a plurality of input mechanisms and a cluttered series of displays. The combination still lacks a bezel and still lacks a transponder control.

Therefore, the proposed combination, as a practical matter, is not likely to be successful or even attempted by one of ordinary skill in the art. Thus, the Appellant respectfully requests that the rejections be withdrawn and the claims be allowed.

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#### 8. SUMMARY

It is respectfully submitted that no proper *prima facie* case of obviousness under 35 U.S.C. §103 has been established. Therefore, it is respectfully requested that the rejections of claims 1-25 be reconsidered and withdrawn.

The Appellant therefore respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Appellant's attorney, Joseph P. Mehrle, at (513) 942-0224 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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Date 4-5-05 By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this \_\_\_\_\_ day of April, 2005.

PANDIS TOUENDING

Signature

#### **CLAIMS APPENDIX**

1. (Previously Presented) A cockpit display, comprising:

a first region having communication settings and navigational settings simultaneously presented within the first region; and

a second region having additional settings and graphical data simultaneously presented within the second region, wherein the cockpit display is surrounded by a bezel having avionic communication, navigation, and transponder controls integrated within the bezel, and wherein the controls are manually adjusted to modify the settings and the graphical data.

- 2. (Original) The display of claim 1, wherein the first region further includes auto pilot settings and flight control settings which are simultaneously presented within the first region.
- 3. (Original) The display of claim 1, wherein the settings of the first region are presented horizontally across the display.
- 4. (Original) The display of claim 1, wherein the first region is positioned above the second region within the display.
- 5. (Original) The display of claim 1, wherein the communication settings are presented within the first region with one or more communication labels identifying the communication settings.
- 6. (Original) The display of claim 1, wherein the navigational settings are presented within the first region with one or more navigational labels identifying the navigational settings.

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7. (Previously Presented) A cockpit display system, comprising:

a display having a display area where one or more settings are presented, and the display further includes an additional display area wherein one or more additional settings and graphical data are presented;

a bezel surrounding a perimeter of the display; and

one or more controls integrated within the bezel operable to dynamically modify one or more of the settings within the display area and one or more of the additional settings within the additional display area, and an avionic transponder control integrated into the bezel.

- 8. (Original) The system of claim 7, wherein the setting display area is positioned directly above the additional display area within the display.
- 9. (Original) The system of claim 7, wherein an orientation of the display area with respect to the additional display area within the display is configurable.
- 10. (Original) The system of claim 7, wherein the settings include communication settings, navigational settings, and flight control settings.
- 11. (Original) The system of claim 7, wherein each of one or more of the settings are presented on the display as a separate distinct color.
- 12. (Original) The system of claim 7, wherein the additional display area is further subdivided into one or more sub-additional display areas and wherein each sub-additional area includes sub-settings and graphical data.
- 13. (Original) The system of claim 7, wherein the setting display area and the additional display area are visibly delineated within the display with one or more visual cues.

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14. (Currently Amended) A cockpit instrument system, comprising:

a first display having a first region displaying settings and one or more second regions displaying first additional settings and additional flight data;

a second display having a first region displaying the settings and having one or more second regions displaying second additional settings and the additional flight data, and wherein the first and second displays immediately adjacent to one another; and

wherein the first additional settings and the second additional settings are the same.

15. (Original) The system of claim 14, further comprising:

a first bezel encompassing the first display and having one or more controls affixed to the first bezel; and

a second bezel encompassing the second display and having one or more controls affixed to the second bezel.

- 16. (Original) The system of claim 14, wherein the settings include communication settings, navigational settings, destination settings, engine readings, messaging data, weather readings, terrain readings, traffic readings, transponder settings, and autopilot settings.
- 17. (Original) The system of claim 14, wherein the settings are displayed at a vertical most location within the first display and at a vertical most location within the second display.
- 18. (Original) The system of claim 14, wherein the settings are displayed horizontally across the first region of the first display and the first region of the second display.

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- 19. (Original) The system of claim 14, wherein the first display and the second display are adjacent to one another.
- 20. (Original) The system of claim 14, wherein if the settings are modified the first and second displays are dynamically adapted to display the modified settings in concert with one another.
- 21. (Previously Presented) A method of presenting flight setting data on a flight display, comprising:

providing a flight display interfaced to flight controls and flight sensors, and wherein the flight controls include a transponder control;

receiving flight setting data from the flight sensors by manually adjusting the flight controls; and

presenting the flight setting data in a contiguous location within the flight display with one or more additional locations within the display available for additional use.

- 22. (Original) The method of claim 21, wherein in providing the flight display, a bezel encompasses the flight display having the flight controls affixed to a front side of the bezel, and a rear side of the display and the bezel include the flight sensors.
- 23. (Original) The method of claim 21, wherein in receiving the flight setting data, the flight setting data include navigational settings and communication settings.
- 24. (Original) The method of claim 21, wherein in receiving the flight setting data, the flight setting data include at least one of autopilot settings, destination settings, messaging data, weather readings, terrain readings, traffic readings, transponder settings, and equipment readings.

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25. (Original) The method of claim 21, further comprising:

providing a redundant flight display proximately located by the flight display, and providing redundant flight controls, and redundant flight sensors proximate thereto; and presenting the flight setting data in a contiguous location within the redundant flight display in a same presentation format as presented in the flight display.